OIPE
AUG 27 2004
PATENT & TRADEMARK OFFICE

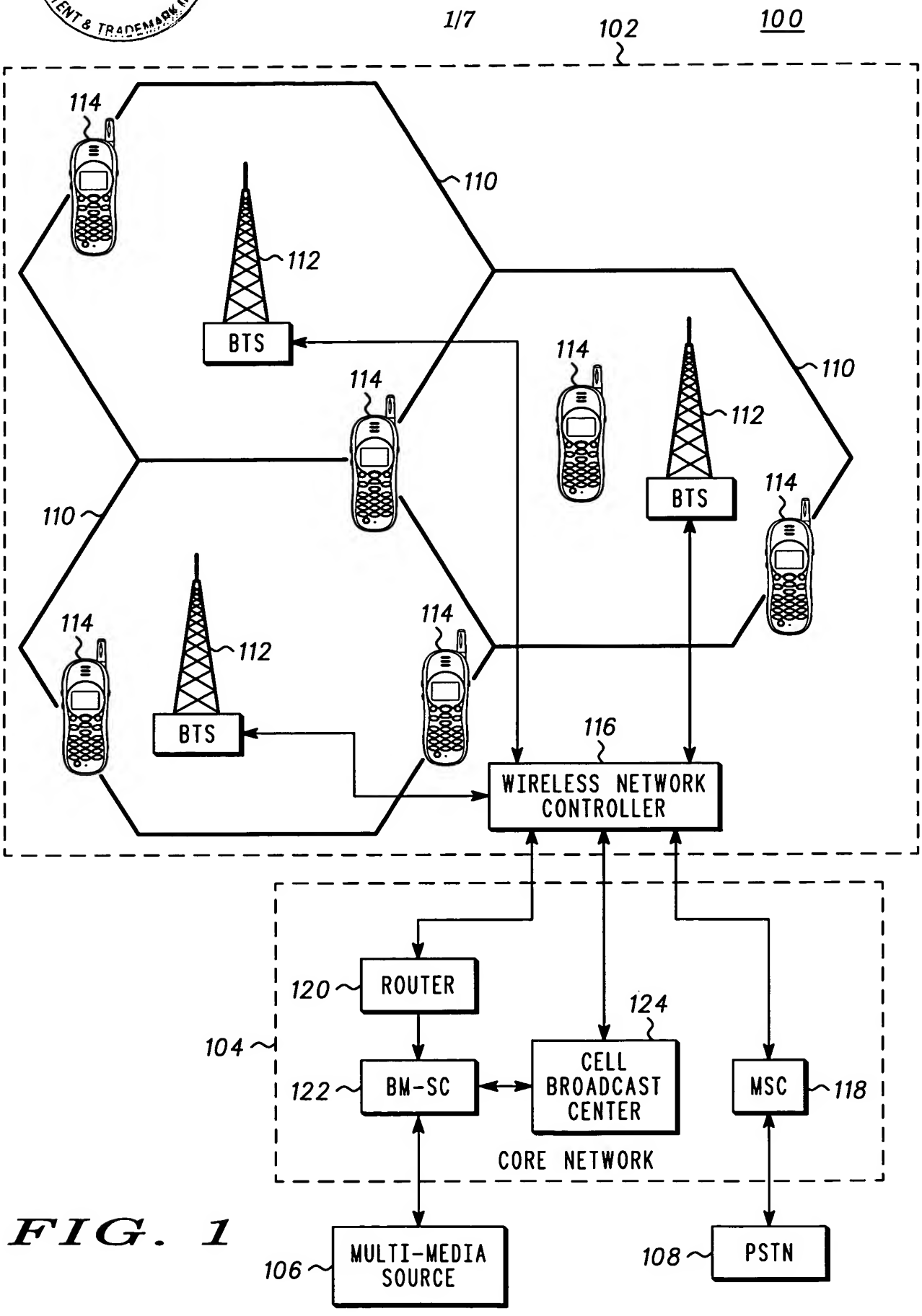


FIG. 1

FIG. 2

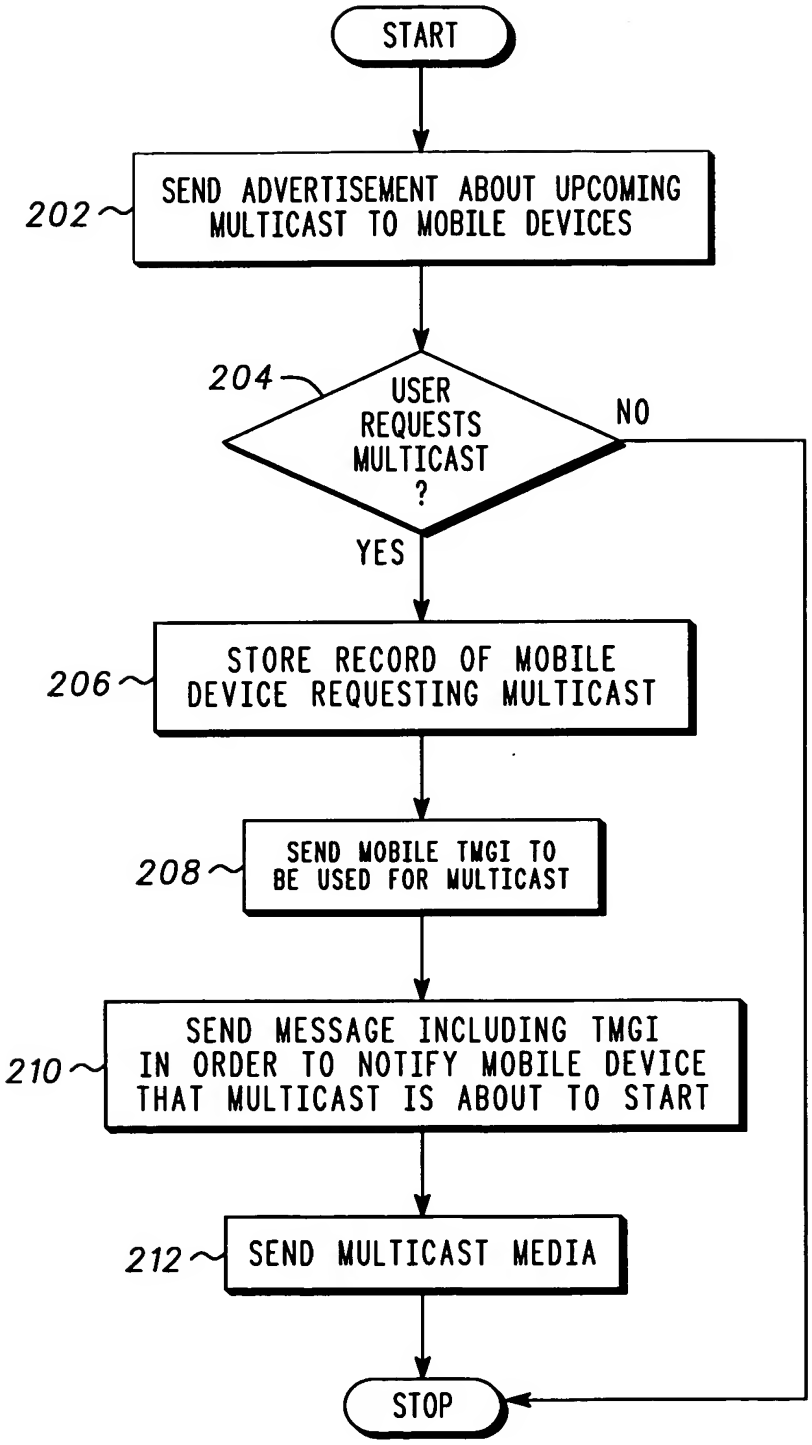

START
202
SEND ADVERTISEMENT ABOUT UPCOMING MULTICAST TO MOBILE DEVICES
204
USER REQUESTS MULTICAST ?
NO
YES
206
STORE RECORD OF MOBILE DEVICE REQUESTING MULTICAST
208
SEND MOBILE TMGI TO BE USED FOR MULTICAST
210
SEND MESSAGE INCLUDING TMGI IN ORDER TO NOTIFY MOBILE DEVICE THAT MULTICAST IS ABOUT TO START
212
SEND MULTICAST MEDIA
STOP

FIG. 3

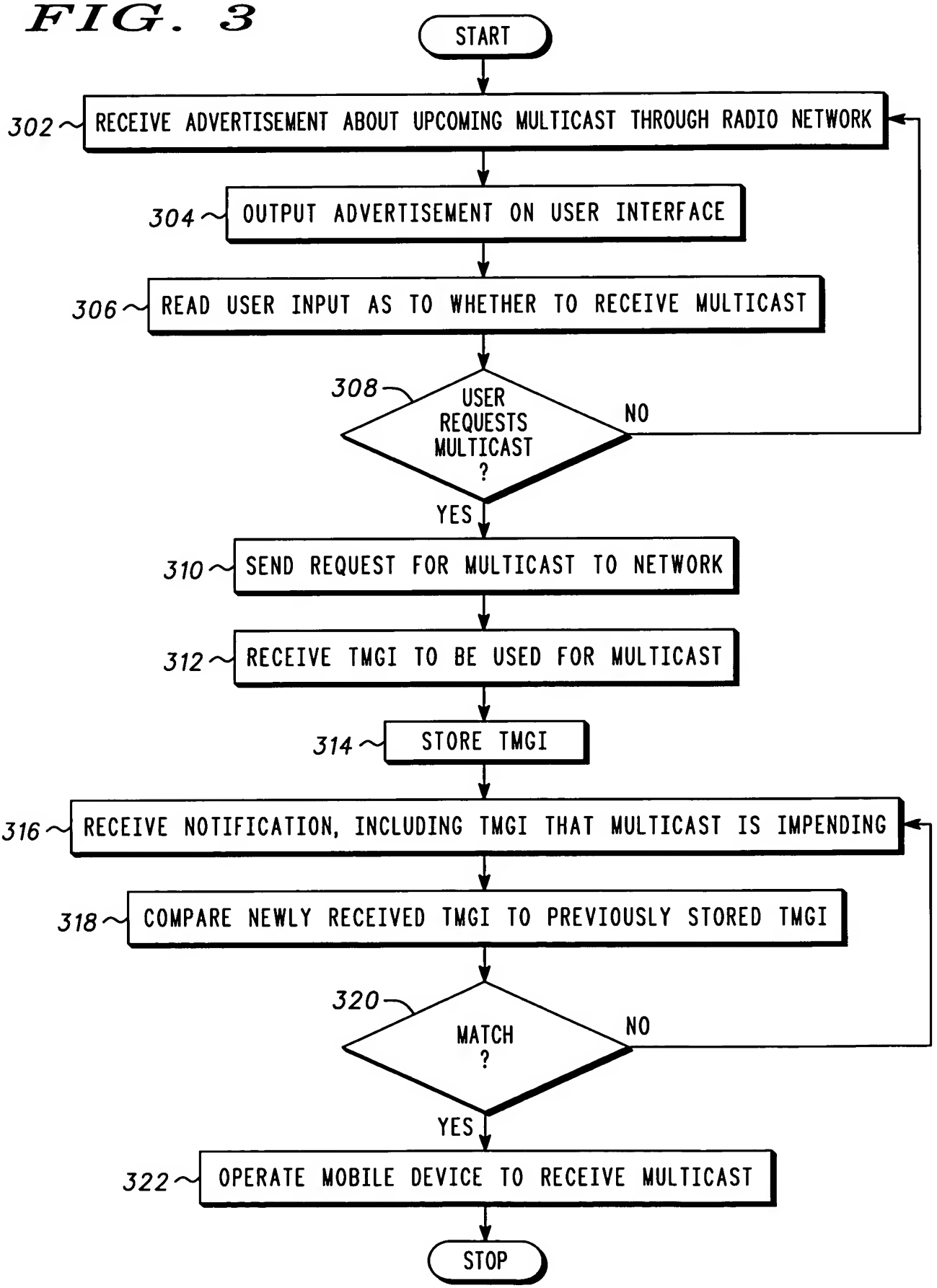

START
302
RECEIVE ADVERTISEMENT ABOUT UPCOMING MULTICAST THROUGH RADIO NETWORK
304
OUTPUT ADVERTISEMENT ON USER INTERFACE
306
READ USER INPUT AS TO WHETHER TO RECEIVE MULTICAST
308
USER REQUESTS MULTICAST ?
NO
YES
310
SEND REQUEST FOR MULTICAST TO NETWORK
312
RECEIVE TMGI TO BE USED FOR MULTICAST
314
STORE TMGI
316
RECEIVE NOTIFICATION, INCLUDING TMGI THAT MULTICAST IS IMPENDING
318
COMPARE NEWLY RECEIVED TMGI TO PREVIOUSLY STORED TMGI
320
MATCH ?
NO
YES
322
OPERATE MOBILE DEVICE TO RECEIVE MULTICAST
STOP

FIG. 4

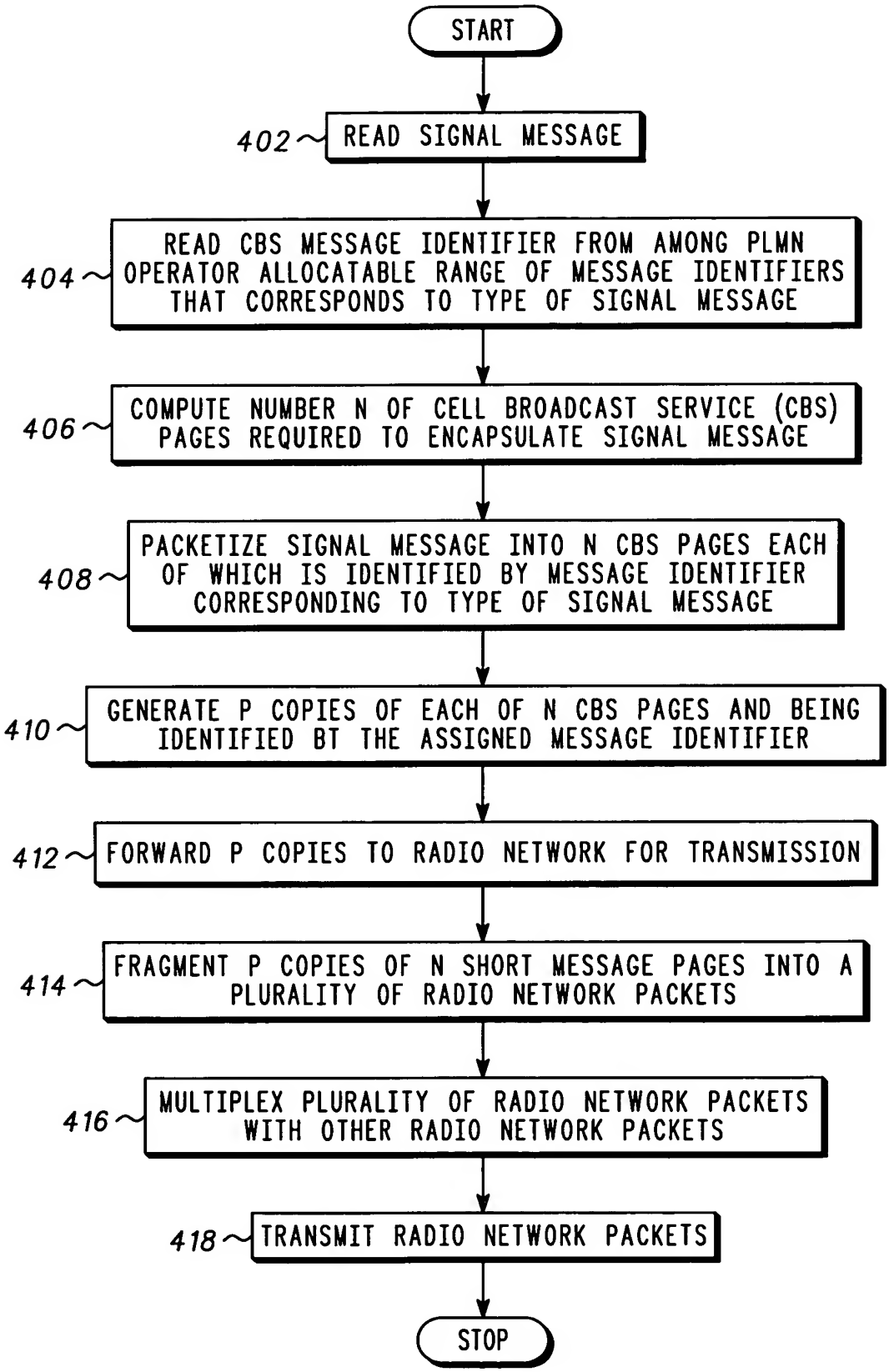

START
402
READ SIGNAL MESSAGE
404
READ CBS MESSAGE IDENTIFIER FROM AMONG PLMN OPERATOR ALLOCATABLE RANGE OF MESSAGE IDENTIFIERS THAT CORRESPONDS TO TYPE OF SIGNAL MESSAGE
406
COMPUTE NUMBER N OF CELL BROADCAST SERVICE (CBS) PAGES REQUIRED TO ENCAPSULATE SIGNAL MESSAGE
408
PACKETIZE SIGNAL MESSAGE INTO N CBS PAGES EACH OF WHICH IS IDENTIFIED BY MESSAGE IDENTIFIER CORRESPONDING TO TYPE OF SIGNAL MESSAGE
410
GENERATE P COPIES OF EACH OF N CBS PAGES AND BEING IDENTIFIED BT THE ASSIGNED MESSAGE IDENTIFIER
412
FORWARD P COPIES TO RADIO NETWORK FOR TRANSMISSION
414
FRAGMENT P COPIES OF N SHORT MESSAGE PAGES INTO A PLURALITY OF RADIO NETWORK PACKETS
416
MULTIPLEX PLURALITY OF RADIO NETWORK PACKETS WITH OTHER RADIO NETWORK PACKETS
418
TRANSMIT RADIO NETWORK PACKETS
STOP

FIG. 5

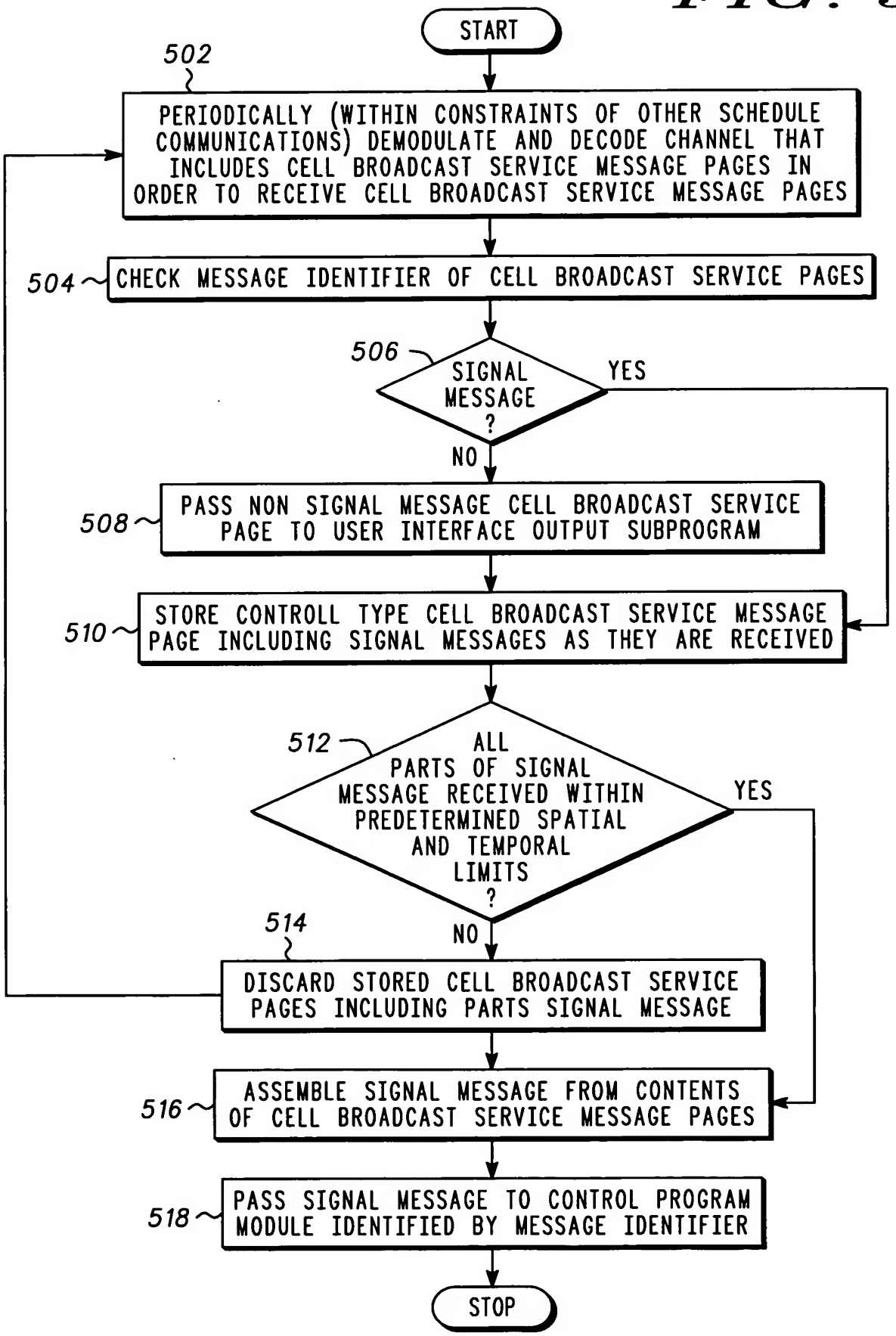

START
502
PERIODICALLY (WITHIN CONSTRAINTS OF OTHER SCHEDULE COMMUNICATIONS) DEMODULATE AND DECODE CHANNEL THAT INCLUDES CELL BROADCAST SERVICE MESSAGE PAGES IN ORDER TO RECEIVE CELL BROADCAST SERVICE MESSAGE PAGES
504
CHECK MESSAGE IDENTIFIER OF CELL BROADCAST SERVICE PAGES
506
SIGNAL MESSAGE ?
YES
NO
508
PASS NON SIGNAL MESSAGE CELL BROADCAST SERVICE PAGE TO USER INTERFACE OUTPUT SUBPROGRAM
510
STORE CONTROLL TYPE CELL BROADCAST SERVICE MESSAGE PAGE INCLUDING SIGNAL MESSAGES AS THEY ARE RECEIVED
512
ALL PARTS OF SIGNAL MESSAGE RECEIVED WITHIN PREDETERMINED SPATIAL AND TEMPORAL LIMITS ?
YES
NO
514
DISCARD STORED CELL BROADCAST SERVICE PAGES INCLUDING PARTS SIGNAL MESSAGE
516
ASSEMBLE SIGNAL MESSAGE FROM CONTENTS OF CELL BROADCAST SERVICE MESSAGE PAGES
518
PASS SIGNAL MESSAGE TO CONTROL PROGRAM MODULE IDENTIFIED BY MESSAGE IDENTIFIER
STOP

FIG. 6

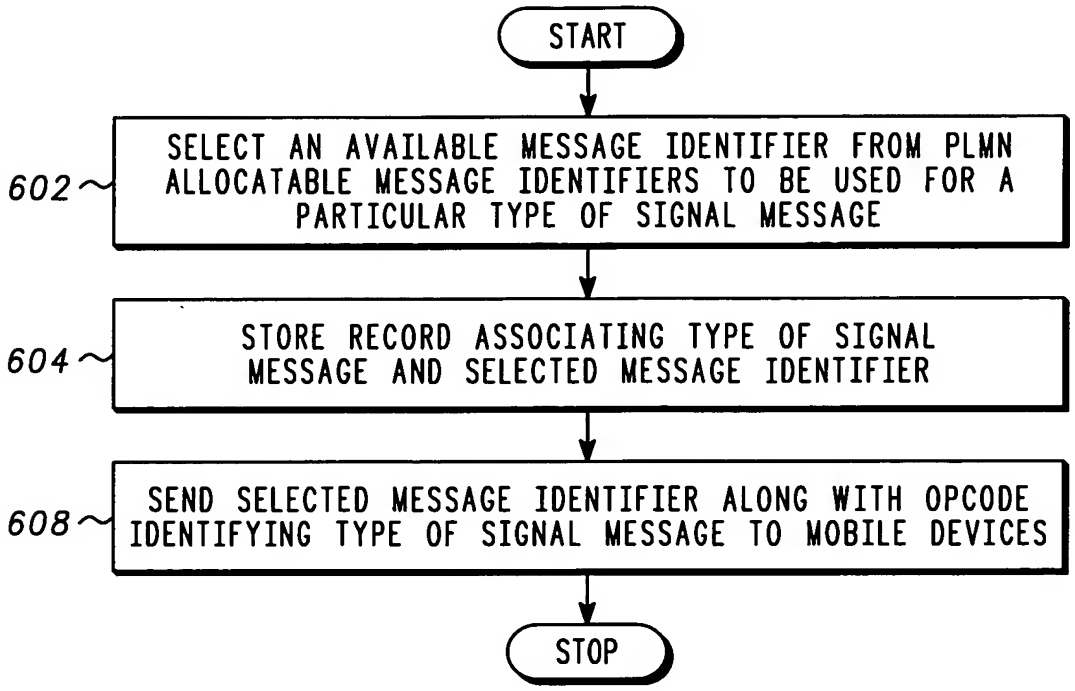
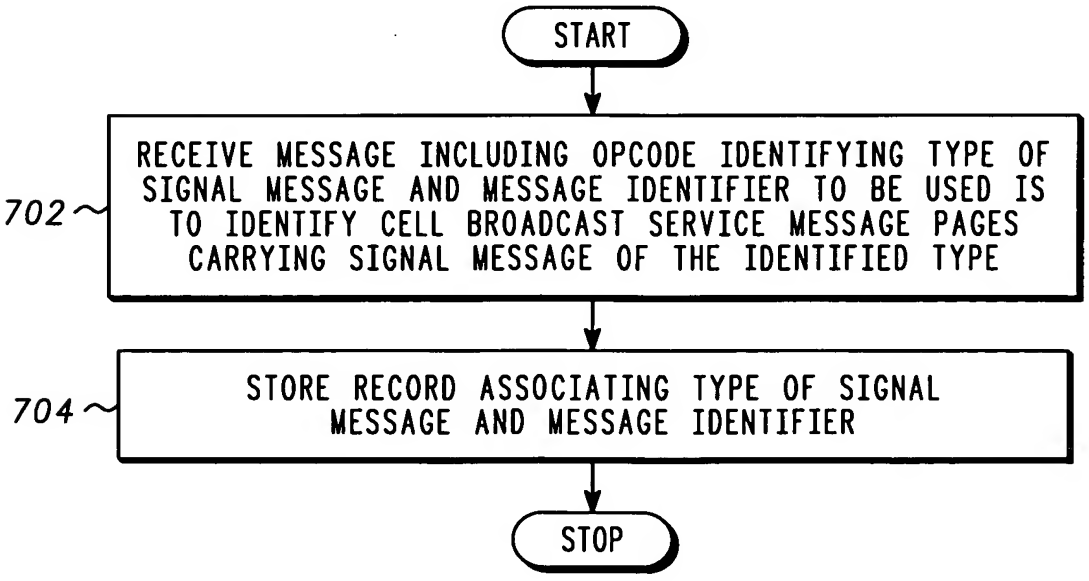

START
602
SELECT AN AVAILABLE MESSAGE IDENTIFIER FROM PLMN ALLOCATABLE MESSAGE IDENTIFIERS TO BE USED FOR A PARTICULAR TYPE OF SIGNAL MESSAGE
604
STORE RECORD ASSOCIATING TYPE OF SIGNAL MESSAGE AND SELECTED MESSAGE IDENTIFIER
608
SEND SELECTED MESSAGE IDENTIFIER ALONG WITH OPCODE IDENTIFYING TYPE OF SIGNAL MESSAGE TO MOBILE DEVICES
STOP

FIG. 7


START
702
RECEIVE MESSAGE INCLUDING OPCODE IDENTIFYING TYPE OF SIGNAL MESSAGE AND MESSAGE IDENTIFIER TO BE USED IS TO IDENTIFY CELL BROADCAST SERVICE MESSAGE PAGES CARRYING SIGNAL MESSAGE OF THE IDENTIFIED TYPE
704
STORE RECORD ASSOCIATING TYPE OF SIGNAL MESSAGE AND MESSAGE IDENTIFIER
STOP

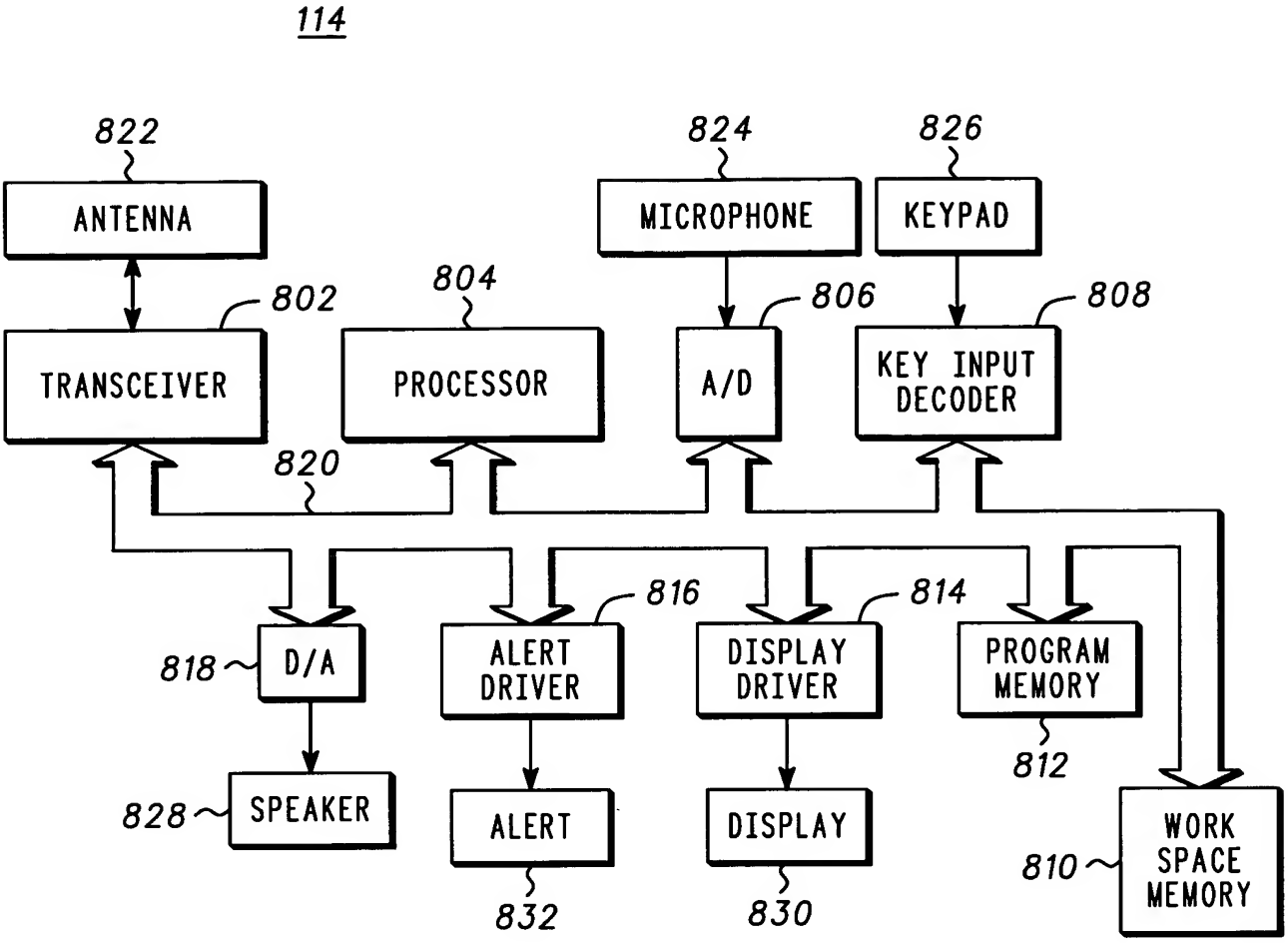

114
822
ANTENNA
824
MICROPHONE
826
KEYPAD
802
TRANSCEIVER
804
PROCESSOR
806
A/D
808
KEY INPUT DECODER
820
816
814
818
D/A
ALERT DRIVER
DISPLAY DRIVER
PROGRAM MEMORY
812
828
SPEAKER
ALERT
DISPLAY
WORK SPACE MEMORY
810
832
830

FIG. 8